

Titanium Chombo

vs

C++/Fortran Chombo

Part III

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The old profiling results on Seaborg

- titaniumc-2.283 (-O -nbcheck -backend gasnet-lapi-smp):

(setenv TI_THREADS n tcrun AMRSolverTEST)

Operations	sequential		parallel					
	n	1	1	2	4	8	16	
SolveAMR	219.3	208.0	248.9	146.2	96.33	92.65	98.9	
Exchange	73.70	73.46	80.24	47.7	32.29	43.87	53.6	
GSRB	55.69	55.83	66.61	33.85	16.98	8.00	4.51	
CFInterp	45.88	34.35	51.42	36.84	30.79	31.72	36.08	
	29.41	18.75	30.20	21.36	19.10	19.77	24.14	
	16.47	15.6	21.22	15.48	11.69	11.95	11.94	
Initialization	20.04	20.29	43.12	55.51	70.66	96.04	148.7	

The profiling results where corners and edges are ignored

- titaniumc-2.395 (-O -nbcheck -backend gasnet-lapi-smp):

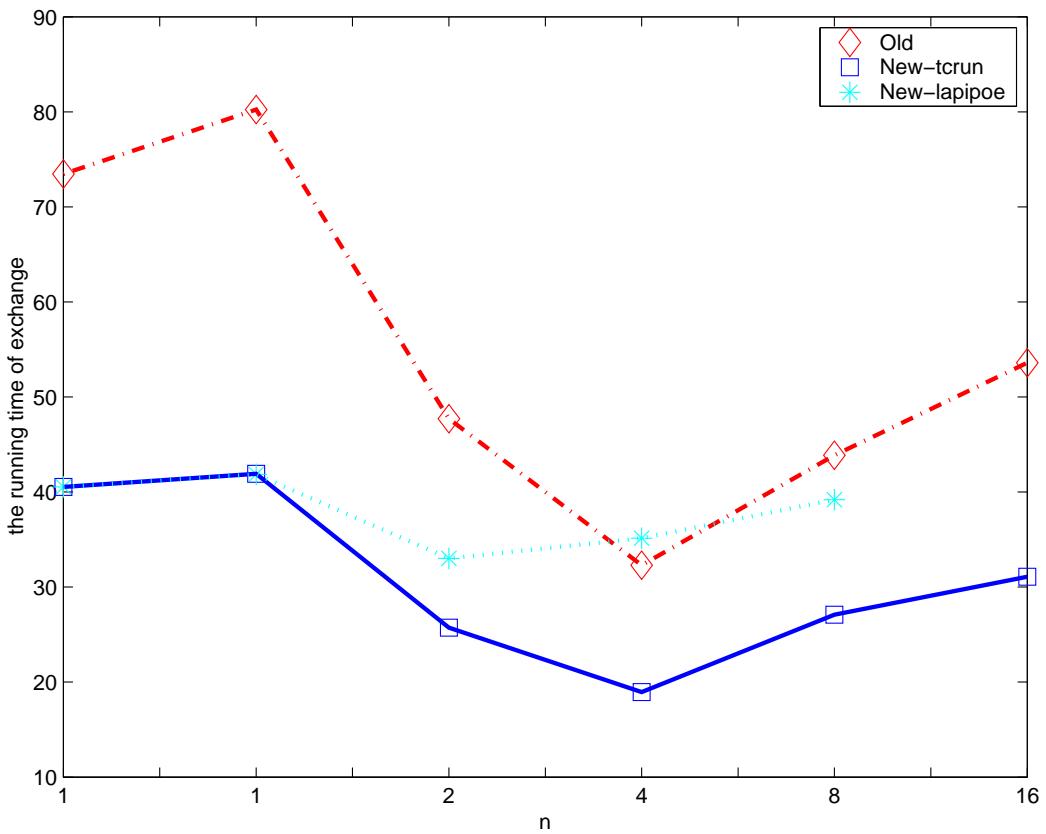
1. (setenv TI_THREADS n tcrun AMRSolverTEST)

Operations	sequential	parallel				
		1	2	4	8	16
SolveAMR	175.3	192.5	116.7	78.52	73.34	73.73
Exchang	40.54	41.86	25.73	18.94	27.09	31.08
CFLinterp	34.31	45.70	34.21	29.99	29.99	34.71
	18.64	25.33	19.33	18.42	19.13	22.73
	15.67	20.37	14.88	11.57	10.86	11.98
Initialization	13.06	23.06	28.48	34.54	46.35	70.63

2. (setenv TI_THREADS 1 bonachea/bin/lapipoe 1 n AMRSolverTEST)

Operations	sequential	parallel				
		1	2	4	8	16
SolveAMR		192.4	112.1	84.56	68.66	n/a
Exchang		41.92	33.02	35.14	39.18	n/a
CFLinterp		45.72	24.05	16.12	10.02	n/a
		25.37	12.24	5.428	2.880	n/a
		20.35	11.81	10.69	7.136	n/a
Initialization		22.98	20.43	20.05	24.84	n/a

The profiling results where corners and edges are ignored



titaniumc-2.409

- /usr/common/ftg/titanium/build-2.409-xlc32/tcbuild/tcbuild (-O -nbcheck -backend gasnet-lapi-smp):
 1. (setenv TI_THREADS n tcrun AMRSolverTEST)

Operations	sequential	parallel				
		1	2	4	8	16
SolveAMR		191.5	116.2	76.41	72.24	72.68
Exchang		44.21	26.46	17.90	26.76	31.24
CFInterp		45.83	33.43	29.80	30.26	33.53
		25.88	19.23	18.38	18.87	21.55
		19.95	14.20	11.42	11.39	11.98
Initialization		23.38	28.14	34.80	48.15	68.55